## **AMENDMENTS TO THE CLAIMS**

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1. (currently amended) A process for the separation of palladium from solvent-free at room temperature solid a crude reaction mixture[s] comprising aryl acetic acids of the general formula

$$R^2$$
 COOR<sup>1</sup>

wherein

Z means phenyl, napht-2-yl, 9H-fluoren-2-yl, substituted carbazol-2-yl, benzoxazol-5-yl, either of which can be substituted with H,  $C_1$ - $C_8$ -alkyl or  $C_1$ - $C_8$ -cycloalkyls optionally eyelie and optionally substituted with -F or -Cl,  $C_6$ - $C_{10}$  -aryl optionally substituted with F or Cl,  $OR^4$ ,  $COR^5$ , -F, -Cl; optionally substituted and pyrrolyl or dehydropyrrolyl or 1-oxo-1,3-dehydro-isoindol-2-yl optionally substituted with F or Cl,  $OR^4$ ,  $COR^5$ , -F, -Cl; R1 means H or  $C_1$ - $C_4$ -alkyl; and  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  mean independently of each other; H,  $C_1$ - $C_8$  alkyl,  $C_6$ - $C_{10}$  -aryl optionally substituted with -F or -Cl, or thiophenyl;

which wherein the crude reaction mixture is obtained by palladium catalyzed carbonylation[,] by adsorption of the palladium on <u>a</u> solid adsorbent[s], characterized in that the adsorption is carried out in the absence of a reducting reducing agent for palladium and at a temperature, where in which the crude reaction mixture is molten.

- 2. (currently amended) A process as claimed in claim 1, wherein said crude reaction mixtures comprise mixture comprises a compound selected from the group consisting of ibuprofen, naproxen, ketoprofen, flurbiprofen, indoprofen, suprofen, hexaprofen, pirprofen, fenoprofen, cicloprofen, mexoprofen, benoxaprofen and carprofen[].
  - 3. (currently amended) A process as claimed in claim 1, wherein said crude reaction mixtures comprise mixture comprises ibuprofen or naproxen.

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4. (currently amended) A process as claimed in claim 1, wherein the solid adsorbent is

selected from the group consisting of activated carbon, optionally functionalized silica gel,

aluminum oxide, infusorial earth, magnesium oxide, ion-exchange resin, neutral solid

adsorbent, zeolite and a combination of two or more of such solid adsorbents.

5. (original) A process as claimed in claim1, wherein the adsorbent is directly added to the

crude reaction mixture, stirred and then separated by filtration.

6. (original) A process as claimed in claim 1, wherein the adsorption is conducted at a

temperature in the range of 40°C to 180°C.

7. (original) A process as claimed in claim 1, wherein the said temperature is in the range

of 40°C to 150°C.

8. (original) A process as claimed in claim 1, wherein the temperature is in the range of

60°C to 120°C.

9. (currently amended) A process as claimed in claim 1, wherein an the solid adsorbent

comprises activated carbon with an average particle-size [<] of less than 150 µm for 80%

of the particles is used as adsorbent.

10. (currently amended) A process as claimed in claim 9, wherein the activated carbon

shows has an average particle-size [<] of less than 60 µm for 80% of the particles.

11. (currently amended) A process as claimed in claim 1, wherein the ion-exchange resin

solid absorbent is a basic ion-exchange resin

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12. (original) A process as claimed in claim 11, wherein the ion-exchange resin is a strong

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basic ion-exchange resin.

13. (original) A process as claimed in claim 1, wherein the solid adsorbent is a

functionalized silica gel.

14. (original) A process as claimed in claim 13, wherein the said functionalized silica gel is

functionalized with phosphine groups.

15. (original) A process as claimed in claim 14, wherein the said functionalized silica gel is

preferably a silica gel functionalized with diphenyl phosphine groups.

16. (new) A process as claimed in claim 9, wherein the separation of palladium from the

crude reaction mixture accounts for 85% to 96% of the palladium originally present in the

crude reaction mixture.

17. (new) A process for the separation of palladium from a crude reaction mixture

containing ibuprofen, wherein the crude reaction mixture is obtained by palladium catalyzed

carbonylation by adsorption of the palladium on a solid adsorbent, characterized in that the

adsorption is carried out in the absence of a reducing agent for palladium and at a

temperature of 40 °C to 200 °C.

18. (new) A process as claimed in claim 17, wherein the solid adsorbent comprises activated

carbon with an average particle-size of less than 150 µm for 80% of the particles.

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19. (new) A process as claimed in claim 18, wherein the separation of palladium from the

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crude reaction mixture accounts for 85% to 96% of the palladium originally present in the

crude reaction mixture.

20. (new) A process as claimed in claim 17, wherein the solid adsorbent comprises ion

exchange resins comprising quaternary ammonium groups, and the separation of palladium

from the crude reaction mixture accounts for 88% to 96% of the palladium originally present

in the crude reaction mixture.

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